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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,019	12/20/2001	Bodo Kuhn	3955/59156-101	1141

7590 11/18/2003

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EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT PAPER NUMBER

3671

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

10/027,019

Applicant(s)

KUHN ET AL.

Examiner

Nathan S Mammen

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 5, 7-9 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,586,033 to Hall (previously cited) alternatively and collectively in view of U.S. Patent No. 5,215,500 to Kirby, U.S. Patent No. 5,082,186 to Bruns, and U.S. Patent No. 4,617,942 to Garner.

The Hall '033 patent discloses an agricultural machine having a crop processing working unit (32), a plurality of crop transport units (40, 42, 46, 36) operatively assembled as a straw walker step, a cleaning device (48) having a forced-draught fan (50), and an exhaust fan (44) located after the cleaning device. The transport units are spaced apart to define a crop through gap. The crop transport streams convey crop streams in opposite directions (i.e., the straw walker step oscillates the crop backwards, and the oscillating pan 46 directs the crop towards pan 36). The transport units (40, 42) are located between the forced-draught fan and the exhaust fan and the forced-draught fan produces an air stream which is directed from the forced-draught fan to the exhaust fan. The forced-draught fan creates two air streams – divided by the cleaning device (48). What the Hall '033 patent does not disclose is that the air stream speed is adjusted by varying the rotational speed of the exhaust fan. The Kirby '500, Bruns '186 and Garner '942 patents each disclose a means for varying the speed of the exhaust fan (see Kirby, col. 3, lines

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55-58; Bruns, col. 3, lines 35-38; Garner, col. 3, lines 19-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the agricultural machine of the Hall '033 patent with a variable exhaust fan as taught by the Kirby '500, Bruns '186 and Garner '942 patents, in order to provide a means for controlling the discharge velocity and pattern (i.e., width) of the chaff and straw. Since the exhaust fan by the nature of fluid mechanics creates a "draw" in the cleaning device, thus assisting the forced-draught fan in creating an air stream, adjusting the speed of the exhaust fan will inherently adjust the air stream speed.

3. Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,586,033 to Hall alternatively and collectively in view of U.S. Patent No. 5,215,500 to Kirby, U.S. Patent No. 5,082,186 to Bruns, and U.S. Patent No. 4,617,942 to Garner, and further in view of U.S. Patent No. 6,591,145 to Hoskinson.

As stated in paragraph 2 above, the Hall '033 patent in view of the Kirby '500, Bruns '186 and Garner '942 patents teach an agricultural machine having a variable speed exhaust fan. What the combination does not teach is an air speed measuring device for measuring air speed and a control and regulating device for controlling the air speed in response to the sensed air speed. The Hoskinson '145 patent teaches that it is known in the art to provide an agricultural machine with a sensor to measure air speed (col. 7, line 51 and col. 9, lines 44-45). If the sensed air speed is not at a preset target speed value, a control and regulating device acts to increase the speed of the fan. While the regulated fan of the Hoskinson '145 patent is a forced-draught fan, in light of the broad teachings of the Hoskinson '145 patent, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an agricultural

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machine as taught by the Hall '033, Kirby '500, Bruns '186, and Garner '942 patents with the air speed sensor and fan speed control as taught by the Hoskinson '145 patent to control the exhaust fan speed, so as to improve threshing operations by reducing grain loss (Hoskinson – abstract).

Regarding claims 8 and 9: The Hoskinson '145 patent teaches that the desired air stream speed is dependent on crop type (col. 3, lines 64-66). The Hall '033 patent discloses that the desired air stream speed is determined as a function of crop throughput or moisture content in the crop (Fig. 4a).

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 5, 7-9 have been considered but are moot in view of the new ground(s) of rejection.

It should be noted that claims 11-23, previously non-elected, have not been officially canceled. Before this application can proceed to issue, these claims must be canceled.

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

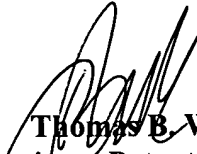
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



**Thomas B. Will**  
**Supervisory Patent Examiner**  
**Group 3600**

**NSM**  
**11/12/03**

**Nathan S. Mammen**